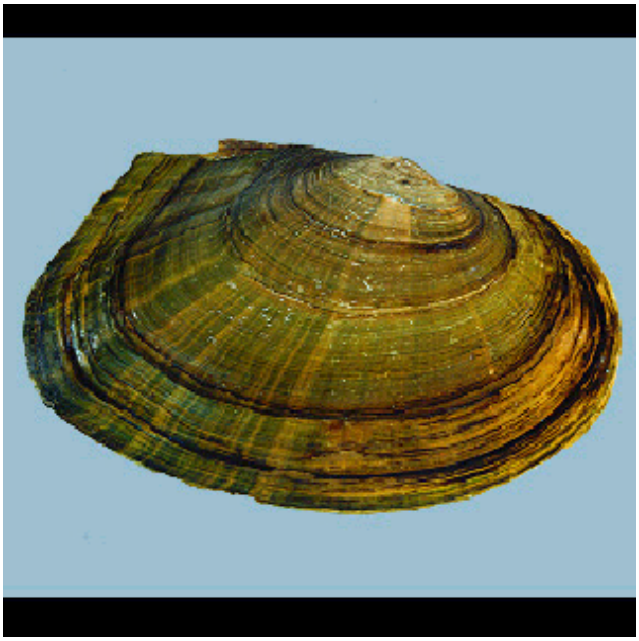

creek heelsplitter

Lasmigona compressa

Kingdom:	Animalia
Division/Phylum:	Mollusca
Class:	Bivalvia

Features

The creek heelsplitter mussel has a small to medium-sized shell that is elongate, relatively thin, and compressed. The anterior end is broadly rounded while the posterior is bluntly pointed and squared at the tip. There is a prominent ridge on the posterior and a small “wing” behind the umbo (hump near the hinge). The dorsal margin is straight. The ventral margin is rounded. The outside of the shell is smooth. Younger individuals are yellowish brown with numerous green rays. Older shells are darker green or brown. The inside of the shell is white to salmon-colored. The creek heelsplitter grows to four inches.

Natural History

The creek heelsplitter is found in creeks and headwaters of small to medium rivers in fine gravel or sand. It rarely is found in large rivers. It is a threatened species in Iowa. Its distribution in Iowa is not well documented. Freshwater mussels have an elaborate reproductive system. During spawning, males release sperm into the water. The sperm are drawn inside the female's shell, where they fertilize eggs in her body. The fertilized eggs develop into larvae (glochidia) and are stored for a time in the female's gills. When the glochidia mature, the female generally expels them into the water where they must attach as parasites to the gills or fins of fish. Larvae remain on the host fish for a period of weeks or months. Young mussels then detach from their host and drop to the bottom of the body of water. Hosts for this mussel are not known. Mussels are filter-feeders, bringing in water and the organic matter it contains through the incurrent siphon, filtering the particles out, then sending the rest of the water away from the body through the excurrent siphon. Particles filtered include plankton and detritus. Mature mussels spend most of their lives, which range from 10 to 100 years, partially or wholly buried in the bottom substrate.

Habitats

interior rivers and streams; Mississippi River

Iowa Status

threatened; native

Siltation and other unknown water quality impacts from changing land use have greatly impacted mussel populations. Populations of some fish species which served as hosts for mussels have declined. The exotic zebra mussel greatly stresses remaining native mussels by covering their shells and competing for food.

Iowa Range

Mississippi River pool 15; Northeastern three-fourths of Iowa

Bibliography

Iowa Department of Natural Resources. 2001. *Biodiversity of Iowa: Aquatic Habitats* CD-ROM.